Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

1.9
In3/We

WEEKLY NEWS SERVICE

EXCLUSIVE TO EXTENSION EDITORS

United States Department of Agriculture

In all States

LAND VALUES CONTINUE DECLINE

(For Release January 6, 1950)

Dollar values of farm land in the United States, though still about double the 1935-39 average, continued to decline during the 4 months ending November 1, according to the Bureau of Agricultural Economics, U. S. Department of Agriculture.

Moderate declines occurred in all but 5 States. No increases were reported. Land values for the country as a whole are 3 percent below July and 6 percent below the high peak reached a year ago. This information is reported in BAE's "Current Developments in the Farm Real Estate Market," released today.

The largest declines since July were in the Pacific States, where values were down 6 percent, and in the East South Central States, where values were down 5 percent. No increases were reported for any State during the 4-month period, but values remained unchanged in 5 States. In Minnesota, Illinois, North Carolina, Florida, and New Jersey values were unchanged at the July level. In ________________ , there was a decrease of ____ percent during the 4-month
(your State)
period (see attached map. In case your State is one of the 5 "unchanged," named above, just eliminate this last sentence.)

The number of farms changing hands continues to decline. During the peak year of farm sales, 1946-47, 58 out of every 1,000 farms changed hands. In 1947-48, the rate dropped to 49 per 1,000. During the year ending in March 1949, only 41 farms per thousand were sold. Prices asked for land tend to continue high and buyers are inclined to delay purchases, hoping for bigger declines in asking prices than have yet occurred.

Glossy prints of attached map may be had upon request to Division of Economic Information, BAE, USDA, Washington 25, D. C.

Two extra copies of the multilithed copy of the map are attached in the event you would like to give a copy to your State extension director and economist.

1.9
Ex3/We

WEEKLY NEWS SERVICE
EXCLUSIVE TO EXTENSION EDITORS
United States Department of Agriculture

In all States

PEACHES SHOULD BE PRUNED ANNUALLY

(For Release January 10, 1950)

The recent trend in pruning peaches is toward less severe pruning of young trees and heavier pruning as the trees become older, points out Dr. Leon Havis, plant scientist of the U. S. Department of Agriculture.

Because winter injury to the wood is often more severe in trees pruned before killing temperature occurs, he recommends that pruning in Northern States be delayed until after danger from winterkill has passed.

Fruit yields are reduced when pruning is delayed until after trees have passed full bloom stage. Even so, Dr. Havis says, it is preferable to prune as late as 3 weeks after the blossoms have fallen than not to prune at all during the year.

//////////

USDA 58 2 (1-50)

FEB 16 1950

WEEKLY NEWS SERVICE

EXCLUSIVE TO EXTENSION EDITORS

United States Department of Agriculture

In Cotton States (To be released February 6, 1950)

Mechanical Cotton Harvesting in North Carolina Covered in New Report:

Less labor per acre and per bale is needed when cotton is harvested mechanically in North Carolina, but whether machine-harvesting is less costly to farmers than hand-picking depends on the wage rates paid for hand-picking and the extent to which farmers are able to make full use of their harvesting machines.

This is the conclusion of a report, based on a study made by the North Carolina Agricultural Experiment Station and the Bureau of Agricultural Economics, U. S. Department of Agriculture, published today by the North Carolina Experiment Station. The study was financed in part with Research and Marketing Act funds. The report is entitled, "Mechanical Harvesting of Cotton in North Carolina, 1948."

The ability of farmers to make full use of their costly mechanical harvesters was found to be an important factor in making mechanical harvesting pay. Unfavorable weather and other handicaps often prevented the use of machines to capacity. It was found that mechanical harvesting was more economical than hand-picking when the cost to pick by hand was at the rate of $4 per hundred pounds of seed cotton, and when more than 33 acres were harvested during the season with a mechanical stripper, or more than 93 acres with a mechanical picker. On the other hand, taking into consideration the limited use of machines, lower prices received for machine-harvested cotton due to grade loss, and other factors, hand-picking at a cost of $3 per hundred pounds of seed cotton was more economical in 1948 than mechanical harvesting.

The report deals with various methods of harvesting cotton, including the mechanical stripper, the mechanical picker and hand-picking. It also makes a number of recommendations to help farmers make more successful use of mechanical harvesters. Described as "preliminary," the report is part of a larger study dealing with all aspects of cotton mechanization.

It is pointed out that though cotton farmers know the need for greater efficiency and lower production costs, inability to mechanize the harvest without considerable loss in grade has contributed to the continued high cost of cotton production. "Cotton is left in a vulnerable competitive position. As

(Over)

the cost of producing synthetic fibers is growing less, more and more of the cotton market is being lost to them." Continued improvement in ginning equipment, however, promises to lessen the grade difference between machine-harvested and hand-picked cotton.

The first mechanical cotton picker used in North Carolina was in Robeson County, in 1945. Since then, about 16 additional mechanical pickers and 40 mechanical strippers have been bought for use in that State. The first picker that first year harvested 170 bales. Since then, no other "picker" or "stripper" in the State has been able to harvest that many bales during a single harvest season. The few mechanical strippers are used in the piedmont or hill section of the State, the mechanical pickers in the coastal plains.

Recommendations to Farmers

The report offers the following suggestions to help farmers make more successful use of mechanical strippers: (1) If practicable, enlarge fields to be planted to cotton for longer rows. (2) Prepare a good seedbed. (3) Remove rocks or other obstructions which may damage the stripper. (4) Plant cotton in uniformly spaced rows 40 inches apart. (5) Practice shallow cultivation and avoid sweeping rocks toward the cotton rows with the cultivators. (6) Keep cotton free of grass and weeds. (7) Defoliate cotton so that mechanical stripping may be started as soon as possible after bolls are mature. (8) Begin harvesting as soon as possible after leaves have dropped. If conditions are such that harvesting at night is feasible, harvesting both day and night may be helpful in avoiding bad weather later in the season and in reducing loss in grade. (9) Keep grade losses to a minimum by having cotton ginned at gins that have installed modern boll-extracting and cleaning equipment to handle roughly harvested cotton.

To aid farmers in more successful use of mechanical pickers, the following recommendations are offered: (1) Select level fields or those with only moderate slopes in which to plant cotton to be mechanically picked. (2) If practicable, enlarge fields to be planted to cotton for longer rows. Short rows reduce harvesting rate considerably. (3) Prepare a good seedbed. (4) Remove rocks or other obstructions which may damage the picker. (5) Plant in uniformly spaced rows about 40 inches apart. Keep rows from curving too sharply in order that the picker mechanism may be kept properly on the row when harvesting. (6) Avoid planting cotton on or over steep terraces. (7) Practice shallow cultivation and avoid sweeping rocks toward the cotton rows with the cultivators. (8) Keep cotton free of grass and weeds. (9) Defoliate cotton before harvesting. (10) After cotton is ready to harvest, take advantage of favorable weather conditions and harvest cotton at night as well as during the day if feasible. In this manner, much bad harvesting weather later in the season may be avoided, and grade losses may be reduced somewhat. (11) Keep grade losses to a minimum by having cotton ginned at gins equipped with modern cleaning equipment.

10 1950

1.9
Ex31We

WEEKLY NEWS SERVICE
United States Department of Agriculture

EXCLUSIVE TO
EXTENSION EDITORS
In All States

BREEDING HENS NEED GOOD DIET

A breeding hen needs a somewhat better diet than a layer to insure the greatest possible number of vigorous chicks, says H. R. Bird, of the Bureau of Animal Industry, U. S. Department of Agriculture. This should mean nutrients that include the necessary amino acids, vitamins, and minerals, as well as sources of energy.

For hatchability, riboflavin, vitamin D, and manganese are important because the amounts needed for the hatching of eggs are greater than the amounts needed for producing them. Besides, the natural distribution of these in sufficiently restricted so that they have to be supplied in special supplementary feeding. It was determined years ago that they may be added economically.

To this list Dr. Bird would add vitamin B_{12}, which must be adequately supplied in the hen's diet to insure satisfactory hatchability of the eggs and the good health, rapid growth, and early feathering of the chicks. The carry-over from hen to chick is probably more important with this vitamin than with any other nutrient, it is pointed out. If hens receive a diet low in vitamin B_{12}, their chicks will show a high death rate, slow growth, and poor feathering--even though the diet fed to the chicks themselves is very well fortified with this vitamin.

"Although the terms 'vitamin B_{12}' and 'animal protein factor' are often used interchangeably, such usage is not correct because animal protein supplements contain not only vitamin B_{12} but other growth factors that are still unknown," says Dr. Bird.

(Over)

The problem of adequately supplying this vitamin economically has been solved during the past year, mostly by using fermentation methods to produce concentrates for livestock feeding, it is explained. Previously the supply of the main sources of vitamin B_{12} were fish meal, fish solubles, and meat meal, which have been seriously short in supply. For the present it is recommended that the new concentrates now on the market be used to supplement the poultry diet rather than to replace the animal protein in the ration completely. At least 2 percent of fish meal or 4 percent of meat meal should be included in the total ration of breeding birds, according to the Bureau authority.

31Ve
2

WEEKLY NEWS SERVICE
United States Department of Agriculture

EXCLUSIVE TO EXTENSION EDITORS
In All States

BRUCELLOSIS MAY BE SPREAD THROUGH HERD BY ARTIFICIAL INSEMINATION

The bull may be the cause of spreading brucellosis. It has been definitely established that an infected bull may transmit Brucella abortus infection, or Bang's disease, to susceptible females when cows are artificially inseminated by intrauterine injection of semen. This method is commonly practiced in artificial insemination rings or cooperatives.

In a recent study of methods of transmission of the disease, Dr. C. A. Manthei, of the U. S. Bureau of Animal Industry, isolated Br. abortus from 80 successive samples of semen from an infected bull. The collections were made over a period of 18 months after potency of the bull had been established when three cows conceived upon being bred by natural mating.

Artificial insemination by the intrauterine method was then practiced on 12 susceptible cattle with semen from the infected bull. Six were cows that had completed one normal gestation and the other six were heifers. After insemination, two of the cows and the six heifers developed active brucellosis. However, only one of the eight infected animals, a heifer, actually conceived, and she aborted 104 days after breeding. Only two of the four cows that showed no evidence of infection actually conceived.

This is conclusive evidence that a bull infected with brucellosis is a possible spreader of the disease and should not be used in the artificial insemination ring. To avoid possible danger to the clean herd, such a bull should not be kept even for natural breeding.

USDA 941 7(4-50)

U. S. [illegible] AGRICULTURE
[illegible] 27 1950

WEEKLY NEWS SERVICE

EXCLUSIVE TO EXTENSION EDITORS in All States

United States Department of Agriculture

REA HAS 15TH ANNIVERSARY

As the Rural Electrification Administration marks its 15th anniversary, Director ______________, of the ______________ State Extension Service, today paid tribute to the farmer groups operating REA-financed electric power systems. During the decade and a half since REA was created on May 11, 1935, electricity has played a major part in improved farm production methods and living standards.

Electric power has brought a new and more abundant way of life to the farms of America. Much of the drudgery once associated with farming has been eliminated. The farm wife has electric refrigerators, washing machines, cooking ranges, and many other labor-saving appliances to help her with her work. Electricity has brought the comforts of city living to the farm home.

But even of greater importance are the more efficient farming methods which the availability of electricity has made possible. The average farmer today has at his fingertips electric devices which make it possible for him to diversify and expand his business. He can put electricity to work for him in more than 400 different ways. This saves him time, money, and effort, in addition to increasing his income.

"Use of electricity is essential to present-day standards of successful farm operation and management," Director ______________ declared. "The farmer realizes he has not yet fully developed the potentialities of the use of electric power, but almost every day he is discovering new ways to put it to work for him. The substitution of electricity for hard-to-get competent hired hands makes his job immeasurably easier. The application of electricity to farming and farm living is just beginning."

(over)

USDA 1117-50   8(5-50)

Rural electrification in ______1_____ has come a long way since May 11, 1935, the day the late President Roosevelt issued an executive order directing the establishment of REA as an executive agency. A year later it became a permanent agency when Congress enacted the Rural Electrification Act of 1936.

REA's main role is that of a banker, the extension service director explained. It lends money for the expansion and improvement of rural electrification facilities to independent, local business firms at 2 percent interest for a maximum period of 35 years

In 1935, the majority of the farms in _____1____ were in the dark. Only ____2____ of them, or ____3____ percent had central station electric service. By June 30, 1949, that number had grown to ____4____ farms, or ____5____ percent. REA-financed co-ops have pledged themselves to keep on expanding their facilities until all the ____6____ farms in ____1____ still waiting for electricity are electrified, he said.

The REA program was started in _____1_____when the first loan was approved on _____7_____, and the first section of rural line was energized by the ___________8___________ on ___________9_______. There are now ____10______ REA-financed systems operating in the State.

As of March 31, 1950, REA had approved loans totaling $_______11_________ for the construction of _____12______ miles of lines to serve _______13______ rural consumers. These loans were made to _____14_____ borrowers in __________1________, _______15___________ of them cooperatives.

The borrowers have actually been advanced $_______16______ of these funds, and as of February 28, 1950, they were operating ______17______ miles of lines and serving ______18_____ farms and other rural establishments.

Through March 31, 1950, REA borrowers in ______1______ had paid $______ 19______ on principal and interest, including $______20______ paid in advance on principal. Only $______21______ was overdue more than 30 days.

The average consumption per farm served from REA-financed lines in _______1________ has increased from ________22______ kilowatt hours in December 1941, to ________23________ in December 1949.

serve
9
/3/W2

WEEKLY NEWS SERVICE

EXCLUSIVE TO
EXTENSION EDITORS

United States Department of Agriculture

in Ark., Miss., Tenn.,
Mo., La., Tex., Ind.,
Ill., Wis., Iowa, Okla.,
Kans., and Nebr.

REPORT SHOWS HOW AND WHERE ARKANSAS BROILERS ARE SOLD

Market outlets and marketing facilities for commercial broilers produced in Benton and Washington Counties, Ark., are analyzed in a study by the Arkansas Agricultural Experiment Station and the Bureau of Agricultural Economics, U. S. Department of Agriculture. The study is published by the Arkansas Agricultural Experiment Station.

Live Arkansas broilers, it was found, are shipped by truck to 19 or more States and some 105 cities in the Midwest and South Central areas--as far north as Milwaukee and Chicago, and as far south as Houston and New Orleans. The study covering the 12-month period beginning March 1, 1948, was financed by Research and Marketing Act funds.

Over four-fifths of the broilers from the two-county area went to Oklahoma, Texas, Illinois, and Missouri. Over half went to Oklahoma and Texas alone. Nearly a fifth went to Muskogee, Okla., for processing. Chicago got nearly 14 percent; St. Louis, nearly 10 percent; Oklahoma City and Dallas, about 4 percent each. The report shows the distribution by States and by principal cities, together with other data, including quantities moving to market each month.

Buyers of broilers in the area included haulers of live broilers, processors or those buying for processing plants, and buyers who were both haulers and processors. Haulers of live broilers generally had the load already sold before buying. About a third of the haulers operated feed stores and hatcheries in addition to their buying and hauling operations. The bulk of the shipments moved in large trailer trucks.

(Over)

Most of the live broilers went to wholesalers. About half went to wholesalers who killed and dressed the broilers, nearly 37 percent went to wholesalers who redistributed them alive, and 1.2 percent went to wholesalers who sold both live and dressed birds. Less than 8 percent went to retailers who purchased direct from buyers and haulers. Chicago and St. Louis were major destination points for broilers going to receivers in the "wholesaler-live" class.

Information gained in this study lays the groundwork for later studies in which the various items of marketing cost between farmers and consumers will be measured. Such demand factors as size and grade of bird, form in which birds are marketed, and season of marketing also will be analyzed.

The two counties studied produced approximately 79 percent of the broilers from Arkansas in 1948. During the past decade, broilers produced in that State have tripled, from 8 million birds in 1939 to over 24 million in 1948.

- - - -

WEEKLY NEWS SERVICE

EXCLUSIVE TO EXTENSION EDITORS

United States Department of Agriculture

Zinc Sulfate Useful To Correct Peach Tree Poisoning

Arsenical poisoning of peach trees growing on old apple land has been greatly reduced by the application of zinc sulfate in combination with high nitrogen fertilization. These results were obtained in a series of successive trials conducted by A. H. Thompson and L. F. Batjer, U. S. Department of Agriculture, working with R. C. Lindner and associates, Washington State Agricultural Experiment Station. Besides reducing the amount of arsenic absorbed by the trees, the zinc-high (10 pounds per tree) treatment with nitrogen seemed to increase the tolerance of the trees to withstand a higher level of arsenic in the leaves. Iron sulfate proved fairly effective, but it was not equal to zinc sulfate in repeated tests. On alkaline soils, the addition of sulfur to either the high nitrogen treatment alone or nitrogen and zinc sulfate together slightly increased their effectiveness against arsenical poisoning.

Thus far it is believed that one application of zinc sulfate along with continued high nitrogen fertilization will be sufficient to bring about the recovery of the infected trees and correct arsenic injury.

Symptoms in peach trees planted in old apple land were first definitely found to be arsenic injury in Washington State in 1940. It shows up in midsummer as a brown to red coloration along the leaf margins. Later these discolored spots die and drop out, giving the peach leaves a shothole appearance.

Sometimes in severe cases the entire tree becomes defoliated. Young leaves do not show symptoms as soon as the older ones. While recovery may come naturally after a few years, the reduced yield and stunted growth of the arsenic-affected trees make the application of zinc sulfate and nitrogen excellent insurance against loss.

LIBRARY
CURRENT SERIAL RECORD
JUN 1 6 1950
U. S. DEPARTMENT OF AGRICULTURE

WEEKLY NEWS SERVICE

EXCLUSIVE TO EXTENSION EDITORS

United States Department of Agriculture

In all Southern States

EARLY-SEASON COTTON TREATMENTS EXCEL

Cotton which received early-season treatment set and matured its crop 2 to 3 weeks earlier than cotton which got no early insecticides, with greater production of seed cotton, in field-plot tests in the Waco, Tex., area in 1949 by entomologists of the U. S. Department of Agriculture cooperating with the Texas Agricultural Experiment Station.

Comparisons were made between early-season, late-season, and early plus late-season insecticide applications. In two of the tests, toxaphene was put on as a dust and as a spray. Control of thrips, overwintering weevils, and other early-season insects was about the same for the two methods. That is, the spray caused a gain of 315 pounds of seed cotton per acre and the dust resulted in 318 pounds gain per acre over the untreated check. The plots ranged from 2 to 16 acres in size.

Early-season applications were made between May 12 and June 8, and the late ones were made between July 8 and July 29. Dusts were applied early in the morning and the emulsions were sprayed during daylight hours.

Plots getting specified numbers of early-season applications produced gains as follows: With an average of 3.5 applications, 317 pounds of cotton more per acre than untreated plots; with 5 applications, 379 pounds gain; and with an average of about 7 applications, 460 pounds increased yield.

The investigators believe that this indicates that in parts of Texas, early-season applications may be more economical than late ones even though entire farms or communities are not treated. Late applications on highly productive land are likely to be needed, the authorities say, after early applications on areas smaller than whole farms or communities.

These experiments may not apply to the conditions found in all the places cotton is grown. The Bureau of Entomology and Plant Quarantine urges that farmers in each State follow the recommendations of the entomologists in their State agricultural experiment stations and extension services.

LIBRARY
CURRENT [illegible]
★ [illegible] 1 5 1950
U. S. DEPARTMENT OF AGRICULTURE

WEEKLY NEWS SERVICE

EXCLUSIVE TO EXTENSION EDITORS
In All States.

United States Department of Agriculture

CULL LAYING FLOCKS TO SAVE MONEY

With egg prices about 32 percent lower now than at this time last year, poultry experts of the U. S. Department of Agriculture urge producers to start heavy culling of laying flocks immediately to keep production costs at the lowest possible minimum.

Culling, according to USDA poultry experts, saves money for the producer by: (1) Cutting down the feed bill, (2) providing more eggs for each pound of feed consumed, (3) increasing the income from labor expended, (4) providing housing room for pullets ready to come off the range, (5) helping toward the building of all-pullet laying flocks and, (6) providing income from the sale of meat birds (old hens) when they have finished laying and are in the best condition to sell for meat.

One of the surest ways to reduce feed costs for a laying flock at this season is to cull the early moulters. These are low-producing birds at best, and now that the major laying season is over most of them will not pay for their keep. Early moulting hens are among the poorest producers. It seldom pays to carry them through the moulting season, because they are nonproducers for much longer periods than are late-moulting birds.

Broody hens also are generally nonproducers. Along with the early moulters, they eat almost as much feed as producing hens do, and they detract from the profits. Hens that are 2 years old this summer also should be watched and culled closely. They are not good producers in hot weather. Further, many hens at 2 years of age have outlived their usefulness as efficient layers and quite probably are not paying for their keep.

(Over)

Poultrymen who want to keep their flocks as free as possible from nonproducing or low-producing birds, are urged to warch constantly for those whose beaks and shanks are beginning to turn yellow. Department experts point out that a good method of culling is to handle the birds at night while they are roosting. Birds, with pelvic bones close together and inflexible, should be culled immediately.

Thorough examination of laying flocks as often as once a week is advised during the summer months in order to keep the flocks at maximum efficiency. This, it is understood, should be in addition to the maintaining of a constant watch for laggard layers.

WEEKLY NEWS SERVICE

EXCLUSIVE TO
EXTENSION EDITORS
In Cotton States

United States Department of Agriculture

TWO NEW CHEMICALS LOOK GOOD TO STOP COTTON INSECTS

Aldrin and dieldrin, two new chemicals to control cotton boll weevil and bollworm, gave promising results last year in field tests near Waco, Texas, according to the U. S. Department of Agriculture.

Scientists of the Bureau of Entomology and Plant Quarantine compared the dwo new chemicals with toxaphene, DDT, chlordane, benzene hexachloride, calcium arsenate, and sulfur in 28 combinations to combat late-season outbreaks of boll weevil and bollworm. The Texas Agricultural Experiment Station cooperated in the work.

In one small-plot test (one-fifth acre) for boll weevil control, a 2.5 percent dieldrin dust produced considerably larger yields than four other sprays or dusts. The dieldrin plot yielded 642 pounds more seed cotton to the acre than the check plot, compared to a 400-pound increase for toxaphene-sulfur or aldrin-DDT-sulfur.

In two boll weevil experiments, mixtures containing aldrin showed up well. A dust containing 2.5 percent aldrin, 5 percent DDT, and 40 percent sulfur gave about the same results as a 20-percent toxaphene dust.

In one test, both dusts gave about a 400-pound increase in seed cotton over the untreated check plot; in the other between 810 and 850 pounds.

In still a different test to stop boll weevil, a DDT-aldrin spray produced 800 pounds more seed cotton to the acre over the check plot, compared to 520 pounds gain for DDT-chlordane and a 600-pound increase for DDT-toxaphene.

The DDT-aldrin spray was applied at the rate of 0.69 pounds of DDT and 0.34 pounds of aldrin per acre at each application. The total volume of spray was at the rate of 7.5 gallons an acre.

USDA 1715 13 (7-50)

WEEKLY NEWS SERVICE
EXCLUSIVE TO EXTENSION EDITORS
United States Department of Agriculture

STOP BIN BUG DAMAGE TO WHEAT

Larger carry-over stocks of hard red winter wheat and its relatively high moisture content--often well over 12 percent--have caused much greater insect infestations in the past few years than usual, according to widespread reports.

Thorough cleaning, spraying, and tightening of grain bins, storing wheat in as dry a condition as possible, and fumigation in August, or within 6 weeks of placing grain in the bins, is the general control procedure recommended by entomologists of State experiment stations and the U. S. Department of Agriculture.

At least three practical reasons exist for urging good storage conditions against damaging insects, according to State-Federal specialists observing current harvests in the winter wheat belt: (1) In some instances as much as 10 percent loss in weight has been caused by insects infesting wheat in farm storage; (2) owing to frequent germ damage to kernels, much larger amounts of insect-damaged wheat than of undamaged wheat must be used for seeding purposes; (3) heating induced by insects causes a musty odor as well as caking and surface spoilage, to bring about lowering of grade and substantial discounts.

Wheat is practically free of insect infestation as it comes from the fields. The insects that infest it while in farm storage come from the woodwork of bins in which they have lived over from the preceding crop, and from accumulations of waste grain in or near the bins or from milled cereals and feeds stored nearby.

"Stories of wheat coming in from the harvest fields swarming with weevils are absurd, because there would not be time for weevils to develop to the adult stage in the growing wheat before harvest," states Richard T. Cotton, Bureau of Entomology and Plant Quarantine, U. S. Department of Agriculture. He points out

(Over)

that sometimes bins of untreated wheat in Kansas and adjacent States which have been sampled in July immediately after it was harvested and put in the bins, were found to contain from 20 to 40 insects per 1,000 grams of grain (453.5 grams to 1 pound)--mostly the saw-toothed grain beetle, the flat grain beetle, and the cadelle. Of these insects only the flat grain beetle is able to fly. So it is clear that they could not have reached and infested grain before it was taken from the field, he declares.

The immature stages of the weevils, flat grain beetle, and Angoumois grain moth develop within the kernels of wheat, where they are unseen, hard to detect, and difficult to remove, so that stocks of infested wheat are usually less desirable for milling purposes.

Recommendations of bin fumigation made by the State-Federal insect specialists call for doubling the dosage in wooden farm bins over that used for treating grain in steel storages. In steel bin fumigation the standard formula is to use 3 gallons of carbon tetrachloride or the same quantity of the 3-1 mixture of ethylene dichloride and carbon tetrachloride per 1,000 bushels, or 2 gallons of the 4-1 mixture of carbon tetrachloride and carbon disulfide. Adding 5 percent by volume of ethylene dibromide to any of these fumigants will improve the rate of kill in surface grain in farm bins, it is pointed out. Farmers should not try to make these mixtures themselves but should buy them ready-made. Stored wheat should be inspected at least once a month and refumigated if insects are found.

Grain stored in emergency places such as quonset huts, airplane hangars, and empty buildings should be of low moisture content and put into the storages as cool as possible. The use of ventilating tunnels for drawing cool air through the piles of grain helps to prevent accumulation of moisture in the top layer, and also helps prevent heating and molding of grain stored in bulk in emergency storages.

- - - -

WEEKLY NEWS SERVICE

EXCLUSIVE TO EXTENSION EDITORS
In All States

United States Department of Agriculture

MORE FARM PRODUCTS GOING INTO CANDY

Your sweet tooth should be getting some fancy new taste treats pretty soon.

Candy makers and the U. S. Department of Agriculture are turning out mouth-watering new kinds of candies using many different farm products.

Among them are a new honey-and-skim-milk powder, oat flour, and products from soy beans, cottonseed, sunflower seed, wheat, peanuts, rice, and whey. Even cotton may prove useful--in candy-making equipment About 3 billion pounds of farm products are used each year to make candy.

The candy industry and USDA are seeking to further improve the taste, texture, and keeping qualities of candy, using farm-grown ingredients. Since this work began in 1943, about 35 different new kinds of candy-making materials have been tried out experimentally for a wide variety of candies by USDA scientists cooperating with the National Confectioners' Association.

One recent discovery is a new powder made of 55 percent honey solids and the rest dried skim milk. Hand-rolled creams containing 10 percent of this mixture proved suitable for chocolate dipping. The powder also made good brittle candy, and scientists now are trying this product in other kinds of candy.

They find that oat flour helps the keeping quality of caramels, with 5 percent of the fine oatmeal giving best results.

The candy experimenters also discovered that refined soybean protein improves the texture and quality of gumdrops.

Earlier, certain parts of cottonseed, peanuts, wheat, soybeans, sunflower seed, and rice were used in making pink nougats, vanilla caramels, cream candies, figrolls, chocolate and coconut fudge, and coconut-fruit squares. Proper

(More)

addition of these farm products does not greatly change the usual characteristics of the candies.

Researchers have been successful also in adding three different vitamins to the candies by using various cereal and oilseed constituents in the mix.

Whey has been used successfully, after some experimenting, as 10 percent of the ingredients of caramels. This dairy byproduct adds protein to the candy and improves its texture.

Even cotton fiber may prove useful in candy-making equipment. A new slab made of layers of cotton and plastic looks promising for the table-top on which candies are formed. The plastic prevents candy from sticking to the slab without the need for mineral oil now used to prevent sticking. The cotton-plastic slab costs only one-fourth as much as a new 100 percent plastic slab now also being tested.

This work on candy is one small part of the USDA's effort, in cooperation with industry, to find new and wider uses for crops and to better the processing of foods and feeds as an aid in raising farm income.

- - -

LIBRARY
CURRENT RECORD
AUG 2 1950
U. S. DEPARTMENT OF AGRICULTURE

1.9
In3We
Cop 2

EXCLUSIVE TO
EXTENSION EDITORS
In All States

WEEKLY NEWS SERVICE

United States Department of Agriculture

TERRACES COST LITTLE; PAY FOR THEMSELVES SOON

You don't need a gold mine to pay for building farm terraces, and they'll pay for themselves in extra crops within 3 years.

H. O. Anderson, of the USDA Soil Conservation Service, says it cost $4 to $5 per acre benefited to build terraces on 42 Wisconsin farms in 1949. Thirty-six men used a county road grader, the others used their farm plow and tractor. These days, private contractors with their own equipment also build many farm terraces.

Experiments in Wisconsin have shown that crop yields are from 10 to 15 percent higher on terraced than on nonterraced land. This yield difference is worth $2.75 per acre per year, even at very moderate prices, declares Anderson.

"Even with no yield advantage the first year," he adds, "terraces will more than pay for construction costs of $5 an acre in only 3 years' time."

He bases his claim on a 10-percent increase in yields of 50 bushels of corn, 50 bushels of oats, and 2½ tons of hay in a 4-year rotation, all figured at "very moderate prices."

Terraces should be planned and staked out by trained, experienced persons. If they're properly planned, well built, and given a little maintenance, terraces will last indefinitely, says Anderson.

- - -

LIBRARY
CURRENT SERIAL RECORD
★ AUG 2 1950
U. S. DEPARTMENT OF AGRICULTURE

USDA 1763 16(7-50)

WEEKLY NEWS SERVICE

EXCLUSIVE TO EXTENSION EDITORS
In All States

United States Department of Agriculture

FEEDING POTATOES TO LIVESTOCK HELPS MOVE SURPLUS

(Facts for this story were taken from USDA Miscellaneous Publication No. 676, Potatoes for Livestock Feeding, by Chester R. Allender, agricultural economist of the Production and Marketing Administration, USDA. This 46-page booklet is a complete review and condensation of all experiments on that problem by experiment stations and others. It reports results from Cornell, USDA, North Dakota, Idaho, New Jersey, Texas, Maryland, Colorado, California, and Germany. It covers rations for dairy and beef cattle, sheep, swine, storage, potato silage, sun-drying and other methods, and research projects contemplated and in progress. There probably is a local angle in this report for almost every State.)

Feeding cull or surplus potatoes to livestock is a sensible, profit-making move for both growers and feeders, says a U. S. Department of Agriculture report.

A survey by the Production and Marketing Administration of experiments at State agricultural colleges and elsewhere showed that dairy and beef cattle, swine, sheep, and even poultry have been fattened successfully using potatoes in the ration.

Here are some of the high lights:

About 400 to 450 pounds of fresh potatoes are equal to 100 pounds of an average grain mixture.

Potatoes are about equal to good corn silage in feed value and have about one-third the feed value of alfalfa hay.

They contain twice as many digestible nutrients as wet beet Pulp or beet tops.

It appears you can safely feed dairy cows up to 35 pounds of potatoes a day, preferably with high-protein legume roughage to offset the low-protein potatoes.

(More)

You can substitute potatoes for all or part of the corn silage, part of the grain mixture, or part of the hay.

For beef cattle, potatoes are sometimes used in fattening rations and may be used in a wintering ration. They may replace part of the hay and grain, and may be gradually increased from 3 or 4 pounds per head daily at the start up to 20 pounds.

Fresh potatoes are well suited for both fattening lambs and wintering ewes as part of their feed. Potatoes are equal to corn silage for fattening lambs, and some commercial feeders claim that potatoes fed to ewes immediately after lambing make the ewes' milk heavier.

As for swine, cooked potatoes make an excellent feed. Raw potatoes are worth only one-half to two-thirds as much in feed value for swine. You can steam them in large kettles or in a covered dump truck for about 30 minutes, and then store them in a silo without adding any other material. Cooked potatoes may replace up to one-half the grain mixture usually fed.

Individual reports from poultrymen indicate they had good results in feeding potatoes to fatten turkeys and other poultry.

You can store late-crop potatoes fresh. Both early- and late-crop potatoes can be ensiled, sun-dried, or mechanically dried. The ideal method of feeding potatoes would be to haul them fresh from the storage or packing shed to the feed lot.

- - - -

LIB
CURRE
★ AUG 2 1950
U. S. DEP

WEEKLY NEWS SERVICE
United States Department of Agriculture

EXCLUSIVE TO
EXTENSION EDITORS
In Cotton States

DUSTING AND SPRAYING TO CONTROL BOLL WEEVIL

Spraying controls the boll weevil as well as dusting, with yields nearly alike for both methods, but at present spraying costs much more than dusting.

These are results of a State-USDA cooperative experiment last season in South Carolina where adjacent plots of cotton were grown under the same conditions.

Spray materials for cotton insect control have been available to farmers for about a year. Hence, farmers, ginners, and manufacturers have repeatedly inquired whether there was any difference in the efficiency and economy of using sprays compared with dusts. They're about equally efficient, but sprays cost more. But this cost comes down as a rule with wider use and more competition.

It is advised, however, that until sprays are tested much more, farmers should keep on using dusts for cotton insect control. If you want to spray your cotton, see your county agent or the State experiment station for advice.

State-Federal authorities recommend that you spray between 9 a. m. and 7 p. m. for best results, when the wind is blowing not more than 10 miles an hour, and when the plants are dry. To prevent the nozzle from clogging with trash, strain the water through a fine screen as you pour it into the tank. Another good practice is to run water through the whole spraying system at the end of each day.

Dusting should be done, the specialists suggest, between 7 p. m., and 8 a. m. instead of in daytime. Stron wind currents in daytime often prevent effective plant coverage.

Comparisons in net returns above costs in using standard materials in dusting cotton in 1949 showed a gain of 892 pounds of seed cotton an acre with a profit of $44.25 an acre in the South Carolina tests.

- - -

USDA 1765 18(7-50)

LIBRARY
[illegible]
★ AUG 2 1950
U. S. [illegible]

WEEKLY NEWS SERVICE
EXCLUSIVE TO EXTENSION EDITORS
United States Department of Agriculture
In All States

GOOD MANAGEMENT IN HOT WEATHER PAYS THE POULTRYMAN

Healthy and efficient laying flocks can be maintained in the summer months by following time-tested hot weather management practices, according to experts of the U. S. Department of Agriculture.

Even though our present-day poultry originated from tropical jungle fowl, the domestic hen likes to be cool. With the proper opportunity she'll keep herself cool even on the hottest days and nights.

Poultrymen, USDA experts point out, can make this possible by providing (1) ample housing for their flocks, (2) plenty of ventilation at all times, (3) shade, and (4) an adequate and constant supply of fresh, cool water.

Housing facilities, large enough to provide ample floor space for young birds, according to size, and up to 4 square feet for each adult bird, pay off not only in egg production but in the health and welfare of the laying flock. Frequently, poultry houses become overcrowded before flock owners realize it. In such cases, culling of the older and least efficient birds to make room for young stock, will solve the problem.

Adequate ventilation should be provided at all times and especially in hot weather. Though this is not a problem in properly constructed houses, some houses may require alteration to make certain that the air flows through them freely and that they are as cool as possible. Insulation of the roofs or ceilings of such houses is frequently helpful. A straw loft in the poultry house has increased in popularity in recent years. In addition, it should be possible to open areas on all sides of these houses to insure cross-ventilation.

(More)

Nests for laying hens and pullets should be built away from the walls of poultry houses. Air circulates around the nests much more freely if this construction practice is followed. A modern idea that has proved very successful is the building of "community" nests rather than those for individual birds. This is because the lack of partitions in community nests permits the free flow of air currents around each bird. Batteries of 4- by 8-foot community nests, supplied with a good, clean bedding material, make a sound all-season investment toward improving the efficiency of poultry houses.

Shade is important, whether it is supplied by the poultry buildings, trees, or shrubbery. Jungle fowl in the sultry, tropical forests, scratched holes in the forest floor in which to sit and cool themselves. Their domesticated descendants cool themselves in the same way when the opportunity is provided.

Constant availability of cool, fresh water in poultry houses and on ranges is highly important in the summer management of laying flocks. Chickens can become prostrated with heat just as human beings can. A bird with its wings spread out and its mouth open gasping for breath, needs a cooler location. Cool water, plus the free circulation of air, helps to keep body temperatures down. High temperatures cause heat prostration and death.

With cool water before them always, ample house room for each bird, and plenty of ventilation, chickens need little else to keep them comfortable, productive, and thriving during the hot weather.

U. S. DEPARTMENT OF AGRICULTURE
★ AUG 1 8 1950 ★
CURRENT SERIAL RECORD
LIBRARY

Reserve

WEEKLY NEWS SERVICE

EXCLUSIVE TO EXTENSION EDITORS

United States Department of Agriculture

In All States.

PREVENTING QUALITY LOSS IN EGGS

Producers may prevent quality deterioration in eggs during the summer months by following a few simple practices, according to poultry experts of the U. S. Department of Agriculture.

The six principal practices that pay off in hot weather when quality eggs bring good prices, are: (1) Collecting eggs frequently from the nests; (2) collecting them preferably in wire baskets; (3) cooling them quickly after collecting; (4) packing eggs in cases only after cooling; (5) marketing the eggs as frequently as possible; and (6) keeping them moist and cool until they are marketed.

Three or four daily "runs" to collect freshly laid eggs in the hen house are not too many in hot weather. The morning run is the most fruitful because most of the eggs to be produced by any flock in a 24-hour period will be laid in the morning. Noon is another good time to collect eggs so as to get them out of the hen house just before the hottest time of day. A check-up run should be made during midafternoon and the final daily collection in hot weather can be made in connection with choretime in the poultry house.

Poultry experts advise the use of wire baskets in which to collect eggs because these permit the free circulation of air around the eggs during the cooling-off period. Well-ventilated wooden baskets or containers provide a good substitute, but closed baskets, boxes, or other similar containers should never be used.

As soon as eggs are collected they should be placed in a moist room or other location where they will cool quickly. Suitable temperature and moisture

LIBRARY
CURRENT SERIAL RECORD
AGRICULTURE

conditions are equally important in the maintenance of egg quality. On farms where refrigeration is available there should be no problems encountered in cooling and storing eggs under proper temperature and moisture conditions. Where such facilities are lacking, the coolest possible location should be sought for storage space. Moisture, of course, to maintain as near 85 percent to 90 percent relative humidity as possible, should be provided in all rooms or places where eggs are being cooled or stored. In actual practice, the humidity supplied should be just short of that which would cause mold. A spray and fan combination works efficiently to increase the moisture content in dry rooms. Lacking this, producers may hang wet burlap cloths in such rooms with fairly good results.

Eggs that are to be kept for hatching should be held at a temperature of about 50 degrees F. Table eggs, to maintain the best in eating quality, should be kept even cooler if possible, and holding them at temperatures of 30° to 32° F., just short of freezing, is recommended if mechanical refrigeration is available.

In packing eggs in cases for delivery to a buyer, producers are urged to precool the egg cases and packing materials, preferably in the same room in which the eggs are stored. Cases and flats or fillers so handled will be cool and charged with moisture when the eggs are packed. If this is not done, the eggs will absorb the heat of the cases and packing materials and the latter will absorb the moisture of the eggs as a blotter takes up ink.

Delivery of eggs from the farm to buyers as often as possible each week, particularly in warm weather, is recommended.

Once eggs arrive in trade channels, they require as much care in handling and keeping as they required on the farm. Eggs in a case or basket on the hot floor of a retail store can lose quality as rapidly as they would lose it in a hen house or hot shed. The rule is that once an egg is produced, it must be kept in a cool place or under refrigeration if possible, and under moist air conditions, until it is consumed.